



Säätötuli
CANADA



Converting an outdoor furnace to biomass

The furnace is placed half-way inside a small shelter
(furnace shown through the walls)



An example of a successful retrofit



This HeatMaster MF20000 (about 800 000 BTU) is used to heat two big houses and a garage at a farm located in St. Melanie in Quebec.

In December 2018, it was modified by adding a hatchway at the rear of the furnace in order to fit a 150kW (511 821 BTU/hr) Säättö tuli biomass burner.

Now the furnace provides a steady flow of heat without any visible smoke, increasing the comfort in the houses.

It uses woodchips made at the farm with a PTO-driven chipper from all the leftover wood from the owner's woodlot.





The biomass combustion system is operated with a Säättötuli C110 control box with Unitronics automation. Connected to the furnace's own thermostat, it will control the burner between heating and idle modes to maintain the furnace at the desired temperature. The control box is CSA certified.



Fuel is fed into a hopper located at the rear of the furnace. In this case, the customer has a Säättötuli Kaks2 feeding bottom and he built a hopper of about 5 cubic meters on top. The hopper is easy to load with the front loader of a tractor. It needs to be filled once or twice a week vs. twice a day before the retrofit.



Säätötuli STRONG

Säätötuli STRONG includes a burner and a biomass silo in a compact and easy-to-move system on wheels.

Available silo sizes: 420 liter (110 gallons) or 920 liter (243 gallons).

Available burner output:

- 40kW / 136 485 BTU/hr
- 60 kW / 204 728 BTU/hr
- 80 kW / 272 921 BTU/hr



With its mixer plate, Säätötuli STRONG is able to process biomass fuels with particle sizes up to 40mm/1.6 inch. It can be used as well with woodchips as with pellets.

Säätötuli Metri2 and Kaks2

For greater outputs, Säätötuli Metri2 and Kaks2 feeding bottoms can be used to make quite huge biomass silos.

Feeding bottom dimensions are 1 x 2 meter (Metri2) or 2 x 2 meter (Kaks2). They are equipped with mechanical rakes that will direct the fuel to the feeding auger.

A metallic silo with lid can be provided with the unit, but in most cases customer prefer to manufacture their own bigger silo on top of the feeding bottom.

A round counter-blade and the special conception of the auger allows the use of lowly screened wood-energy chips.

Available burner outputs (on top of the outputs for STRONG):

- 120kW / 409 457 BTU/hr
- 150kW / 511 821 BTU/hr
- 200kW / 682 428 BTU/hr
- 300kW / 1 023 642 BTU/hr
- 400kW / 1 364 857 BTU/hr
- 500 kW / 1 706 071 BTU/hr

You can discover our full range of biomass boilers on our website:

www.saatotuli.ca



Säätötuli Canada Enterprises inc.
5720 rue Barré
St. Hyacinthe, QC
CANADA, J2R 1E4

Phone: 450-253-1567
www.saatotuli.ca